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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/591,627	09/05/2006	Franz Schwendemann	15407.0001USWO	3314
23552 7590 08/18/2008 MERCHANT & GOULD PC P.O. BOX 2903 MINNEAPOLIS, MN 55402-0903				
EXAMINER				
YABUT, DANIEL D				
ART UNIT		PAPER NUMBER		
4114				
MAIL DATE		DELIVERY MODE		
08/18/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/591,627

Applicant(s)

SCHWENDEMANN, FRANZ

Examiner

DANIEL YABUT

Art Unit

4114

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 September 2006.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-26 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 14-26 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 05 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SF-08)
Paper No(s)/Mail Date 9/5/2006
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

Specification

1. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: The specification does not support the term "tangentially spaced intervals" that is recited as a limitation in claim 16, line 2.

Claim Objections

2. Claims 15-26 are objected to because of the following informalities:

Claims 15-23 recite the limitation "according to claim 1" which indicates dependency on a claim that has been canceled as of 1/9/2008. It appears that the claims should recite - -according to claim 14- - . Appropriate correction is required.

Claim 24 recites the limitations "according to claim 7" which indicates dependency on a claim that has been canceled as of 1/9/2008. It appears that the claim should recite - -according to claim 20- - . Appropriate correction is required.

Claim 25 recites the limitations "according to claim 9" which indicates dependency on a claim that has been canceled as of 1/9/2008. It appears that the claim should recite - -according to claim 21- - . Appropriate correction is required.

Claim 26 recites the limitations "according to claim 12" which indicates dependency on a claim that has been canceled as of 1/9/2008. It appears that the claim should recite - -according to claim 23- - . Appropriate correction is required.

The Examiner will assume that the aforementioned suggestions are true for this Office action only.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 15-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 15 recites the limitation "approximately vertical to the cylinder axis" in lines 3-4 of the claim. For clarity and definiteness, it appears that "vertical" should be changed to - perpendicular - .

The limitation "tangentially spaced intervals" in claim 16, line 2 is unclear. Does this refer to the longitudinal intervals between crosspieces or the interval between the two radially opposite crosspieces? The Examiner will consider the term to be synonymous with the longitudinal intervals between crosspieces for this Office action only.

Claim 17 recites the term "kidney-shaped" in line 2 of the claim. Is this synonymous with "curved" or "arcuate"? The Examiner will assume that the aforementioned interpretation is true for this Office action only.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claim 14, 15, 18, 22, and 23 rejected under 35 U.S.C. 102(b) as being anticipated by Frey et al., US PBPub 2004/0012280. Frey et al. discloses a rotary drive (see at least Fig. 1) that adjust a moving part in a motor vehicle (see paragraph [003] lines 1-5) comprising the following:

Re claim 14

- Rotor (6) positioned with bearings (see bearings near 6 and 14 in Fig. 1) in a housing (Fig. 1)
- Rotor being supported with at least one front face (18) axially on a supporting member (34), which is attached via a form closure on the housing
- Supporting member (A; see Figure Y below) having radial crosspieces (see paragraph [0029], lines 8-10) that can be turned into the housing (3) thereby creating chamfers (Frey discloses the supporting member as a set screw with an external thread, see paragraph [0029], lines 8-10, which is commonly known in the art to be capable of turning into a housing and creating chamfers as described in the specification)

Re claim 15

- Supporting member having a cylindrically shaped base plate (at A; see Figure Y below) having its own cylinder axis (C; see Figure Y below) wherein the base plate has an outer circumference where crosspieces (B; see Figure Y below) are arranged in a plane approximately vertical to the cylinder axis (see crosspieces in planes approximately vertical to the cylinder axis C in Figure Y below)

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Re claim 18

- Crosspieces (B) are arranged in several planes, which are axially spaced in intervals (see Figure Y below)

Re claim 22

- Front face of the rotor has a radius (D; see Fig. Y below) that rests against a flat stop surface (E; see Fig. Y below) that is formed on the supporting member

Re claim 23

Frey et al. discloses the advancement of the supporting member (see paragraph [0029] lines 8-14) as well as a notch-like feature (F; see Figure Y below) formed on the support member which is deemed to be a form closed entrainment member.

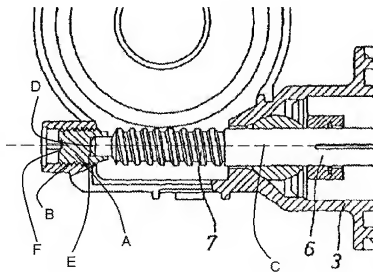


Figure Y: View of supporting member within rotor drive in the device of Frey et al.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 26 is rejected under 35 U.S.C. 102(b)/103(a) as being unpatentable over Frey et al., US PGPub 2004/0012280 as applied to claim 23 above. Frey et al. discloses substantial claim limitations (see 102 rejection above) but does not expressly disclose the entrainment member being an inside polyhedron or cross slit that transfers a torque during the installation of the supporting member.

9. However, it is deemed that the notch-like feature noted above includes the inside polyhedron or cross slit, both of which are old and well known in the art.

Alternatively, it would have been an obvious matter of design choice to one having ordinary skill in the art at the time of the invention for the entrainment member to have an inside polyhedron or cross slit which are old and well known in the art to enable a transfer of a torque to the supporting member during the installation of the supporting member for the purpose of facilitating installation (or removal) of the supporting member. Further, the use of a polyhedron and a cross slit for the purpose of transferring torque during installation was well known in the art by one of ordinary skill at the time of the invention.

10. Claims 16 and 17 rejected under 35 U.S.C. 103(a) as being unpatentable over Frey et al., US PGPub 2004/0012280 in view of Gutshall, US Patent 4,069,730. Frey et

al. discloses substantial claim limitations (see 102 rejection above) but does not disclose the following, respectively:

- Crosspieces being arranged in tangentially spaced intervals and extending over an angular range that consists of a fraction of the outer circumference
- Crosspieces including two crosspieces lying radially opposed to each other and being kidney-shaped, and are positioned around the outer circumference

As to claim 16, Gutshall teaches the use of crosspieces (16) being arranged in tangentially spaced intervals (see tangentially spaced intervals at 14 in at least Fig. 1) and extending over an angular range that consists of a fraction of the outer circumference (see angular range in at least Fig. 2) for the purpose of increasing contact area and thus effectively providing more axial support.

Regarding claim 16, it would have been obvious to one having ordinary skill in the art at the time of the invention to alternatively provide crosspieces being arranged in tangentially spaced intervals and extending over an angular range that consists of a fraction of the outer circumference, as taught by Gutshall, in the device of Frey et al. for the purpose of increasing contact area and thus effectively providing more axial support.

As to claim 17, Gutshall teaches the use of crosspieces (16) including two crosspieces lying radially opposed to each other (see at 16 in at least Fig. 3) and being kidney-shaped (see kidney shape at 16 in at least Fig. 2), and are positioned around the outer circumference for the purpose of reducing tapping torque.

Regarding claim 17, it would have been obvious to one having ordinary skill at the time of the invention to alternatively provide crosspieces including two crosspieces

lying radially opposed to each other and being kidney, and are positioned around the outer circumference, as taught by Gutshall, in the device of Frey et al. for the purpose of reducing tapping torque which can promote the ease of installation.

11. Claims 21 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Frey et al., US PGPub 2004/0012280 in view of Gutshall, US Patent 4,572,875. Frey et al. discloses substantial claim limitations (see 102 rejection above) but does not disclose the following, respectively:

- Crosspieces having a sharp cutting edge that cuts into the housing when turned in a direction of installation, and the crosspieces having a second edge with locking mechanisms
- Locking mechanisms include a ridge that grabs tightly into the housing when turning occurs against the direction of installation

As to claim 21 and 25, Gutshall teaches the use of crosspieces (22) having a sharp cutting edge (24) that cuts into the housing when turned in a direction of installation, and the crosspieces having a second edge (at 22) with locking mechanisms for the purpose of reducing the torque requirement for installation and to ensure a robust attachment. The cutting edge (24) gradually expands in width to become a ridge, or second edge (at 22), and thereby naturally grabs tightly into the housing when turning occurs against the direction of installation. Further, according to Gutshall, the second edge (22) requires a substantially higher torque application for tapping relative to the cutting edge (see column 1, lines 32-37), and can thus act as a locking mechanism.

Regarding claim 21, it would have been obvious to one having ordinary skill in the art at the time of the invention to alternatively provide crosspieces having a sharp cutting edge that cuts into the housing when turned in a direction of installation, and the crosspieces having a second edge with locking mechanisms, as taught by Gutshall, in the device of Frey et al. for the purpose of reducing the torque requirement for installation.

Regarding claim 25, it would have been obvious to one having ordinary skill in the art at the time of the invention for the locking mechanisms to include a ridge that grabs tightly into the housing when turning occurs against the direction of installation, as taught by Gutshall, in the device of Frey et al. as modified above to ensure a robust attachment.

12. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Frey et al., US PGPub 2004/0012280 in view of Sangret, US Patent 6,269,709. Frey et al. discloses substantial claim limitations (see 102 rejection above) but does not disclose the housing having a through hole with radially formed recesses on a circumference of the through hole, in which crosspieces of the supporting member are inserted axially during installation.

Sangret teaches the use of a housing (60) having a through hole (64) with radially formed recesses on a circumference of the through hole (see column 3, lines 17-18), in which crosspieces (on member 66) of a supporting member (66) are inserted axially during installation for the purpose of closing the housing chamber and supporting inner components (see column 3, lines 15-17).

It would have been obvious to one having ordinary skill at the time of the invention to provide the housing having a through hole with radially formed recesses on a circumference of the through hole, in which crosspieces of the supporting member are inserted axially during installation, as taught by Sangret, in the device of Frey et al. for the purpose of closing the housing chamber and supporting inner components (see column 3, lines 15-17).

13. Claims 20 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Frey et al., US PGPub 2004/0012280 in view Adams, US Patent 5,000,637. Frey et al. discloses substantial claim limitations (see 102 rejection above), including an attachment area for the supporting member (at B in Figure Y above) but does not disclose the following, respectively:

- Attachment area being manufactured from a softer material than that of the crosspieces
- The softer material including plastic, aluminum, magnesium or zinc

As to claims 20 and 24, Adams teaches the use of an attachment area (36) being manufactured from a softer material, the material being plastic (see column 4 lines 38-40), than that of the crosspieces (24) for the purpose of allowing the crosspieces to securely attach to the attachment area (see column 4 lines 34-36).

Regarding claims 20 and 24, it would have been obvious to one having ordinary skill in the art at the time of the invention to provide an attachment area being manufactured from a softer material, the material being plastic, than that of the crosspieces, as taught by Adams, in the device of Frey et al. for the purpose of allowing

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the crosspieces to securely attach to the attachment area thus providing superior fastening performance.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL YABUT whose telephone number is (571)270-5526. The examiner can normally be reached on Monday through Friday from 9:00 A.M. to 5:00 P.M. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Q. Nguyen can be reached on (571)272-6952. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John Q. Nguyen/
Supervisory Patent Examiner, Art Unit 4114

/DANIEL YABUT/
Examiner, Art Unit 4114

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